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U. S. Department of Agriculture

# COMMERCIAL NURSERY COMPANY

INDEXED

GROWERS OF  
High Grade  
Nursery Stock

WINCHESTER  
TENNESSEE



FEB 28 1916

# To Our Patrons

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THESE Nurseries are situated on the main line of the N. C. & St. L. R. R., just north of Winchester and close to the Cumberland Mountains, where the soil seems to be fitted by nature to grow the very best nursery stock.

We have never been troubled by any diseases common to young trees. Our Nurseries are not the largest in the world, and hence we think we can look after our customers' interests better. We have one hundred acres in Trees, Vines, Roses and Evergreens. Our scion orchards and test orchards are on our own grounds. This insures us trees true to name. One of the firm acts as foreman and oversees all stock grown and packed; has been growing trees for twenty years and will always be glad to help customers to make selection of trees fitted to your section.

Finding that our business demanded it, we have purchased eighty acres of land in Florida at Monticello, the best suited for growing a fine Pecan Tree, and the Satsuma Orange. Figs, and Pecans of the finest thin-shell varieties, are grown there for our trade. Description of these will be found under this cover.

Thanking our patrons for past favors and hoping to merit a continuance of same, we remain,

Yours truly,

Commercial Nursery Co.

Winchester, Tennessee



## Notice the Following Pointers

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**ORDERS** should be sent in early. We will fill orders in rotation, and those who wait until ready to plant may find us sold out of some varieties especially wanted. We shall be glad to reserve plants or trees, to be shipped at the convenience of the purchaser.

**MAKING OUT YOUR ORDER**—Please use the printed order blank enclosed with this; it will greatly aid in filling your order quickly and without error. Write your name and postoffice plainly. If Miss or Mrs., specify which. If your express and post-office have different names, mention the fact.

**REMITTANCES**—We prefer Postal or Express Money Orders. Large amounts may be sent by cashier's draft on New York. Don't send private check on your local bank unless you add 25 cents for exchange.

**GUARANTEE**—We guarantee all our stock to be healthy and free from disease, well-grown, vigorous and in thrifty condition; to contain no overgrown or stunted trees, to be correctly labeled, well packed, and delivered to carrier in good condition, after which our responsibility ceases. While we exercise the greatest care to have all our trees, etc., true to label and hold ourselves in readiness, upon proper proof, to replace all that prove untrue to label free of charge, it is mutually understood and agreed that our guarantee of genuineness shall in no case make us liable for any sum greater than the amount paid for the trees, etc., that shall prove untrue.

**TERMS**—The terms and conditions on which we offer the stock listed here invariably include prepayment, in full, in advance. For payment made in any other way, we will quote special prices. We will, however, book orders and reserve plants or trees, if a remittance of 25 per cent of the amount accompanies the order, the balance to be paid previously to shipment.

**PRICES**—Our prices are very low for the first-class stock we offer. Our reputation has been built up by good trees, good packing, prompt shipment and pleased customers; and we cannot undertake to compete with those offering inferior stock, who have nothing to lose. Our prices are fixed to suit the times, and yet to enable us to supply our customers with a high standard in our products. Every tree, plant or rose bush is guaranteed to be a perfect specimen. Send us a list of your wants and we will quote you a special price on same.

**PACKING**—We pack with plenty of good, clean straw and sphagnum moss, which retains moisture for a considerable time, enabling us to deliver trees in fresh and perfect condition. Our packing is done by experienced workmen.

**CLUB ORDERS**—We give special attention to them. Write for special inducements.

**CLAIMS** must be made immediately on receipt of goods. We are as apt to make mistakes as anybody, and, when we do, we wish to know about it, so as to make suitable correction promptly.

**BY MAIL**—All our stock is field grown, and is entirely too large and heavy to be sent by mail. Trees must go by express or freight.

**SHIPPING SEASON** usually extends from October 20 to April 10.

**AGENTS**—We have been employing traveling salesmen for nearly thirty years. We believe in agents. We believe all our salesmen to be honorable men, and commend them to the public, asking to be notified of any attempt at misrepresentation or over-charge, which we strictly forbid.

**ORDER EARLY**—Send in your order now. Plants will be reserved. Delay may cause disappointment.

# General Information for Planters

## PREPARATION OF THE SOIL

The most desirable soil for fruit trees is a rich loam, naturally dry, or made so by drainage. Before planting prepare the land by thorough plowing and sub-soiling, first using a two-horse plow, followed by a subsoil plow. Lay off the rows at required distances, and dig holes at least two feet wide and two feet deep; fill the holes by breaking in the sides, commencing at the bottom and going upwards. Use surface soil in filling up, and with this mix a shovelful or two of cottonseed or stable-manure compost, well decomposed, or about one pound of bone meal. Avoid the contact of the roots with heating manures.

## SELECTION OF TREES

For this climate experience has taught us that one and two-year-old trees of thrifty growth are the most desirable. Purchasers should bear in mind that such trees can be removed from the nursery with all their roots; whereas a four or five-year-old tree cannot be taken up without cutting away a large portion of them. Success in transplanting is increased according as attention is paid in selecting well-rooted trees instead of heavily branched ones. Give us many sound roots and as little head to a tree as possible.

## PREPARATION OF THE TREE

Before planting remove all broken roots. Cut back one-year peach or apple trees to a naked stem  $1\frac{1}{2}$  or  $2\frac{1}{2}$  feet high—leaving no side branches. Two-year-old trees should have their branches cut back to half their length or more, the lower less than those above, cutting in shorter as you go upward, and leaving the leader the longest. Plant as deep as the tree was standing in the nursery row, except dwarf pears and cherries, which should be planted sufficiently deep to cover the stock from two to three inches. It is best to allow the tree to form its head in its permanent place, rather than in the nursery row.

## TO INSURE THE EARLIEST CROP OF FRUIT AFTER TRANSPLANTING, ALWAYS SELECT ONE OR TWO-YEAR-OLD TREES

**TIME FOR PLANTING**—In this climate vegetation, although inactive in winter for the formation of leaves and new wood, is never so as to new roots. A tree transplanted in November or December will, by the ensuing spring, have formed sufficient new roots to give it a firm hold in the ground and will grow off rapidly when active vegetation commences. Plant as early after the first killing frost as practicable, and do not delay it until the spring months. Apple trees can be transplanted here as late as March, and in some seasons the first of April, but success is increased if the planting has been done in the fall or early winter.

## AFTER CULTURE

**FOR GARDENS**—Keep the soil free from grass and weeds, and stir frequently during the summer. Remove all suckers and branches which start below the head of the tree. Mulching is advisable for trees planted late in spring.

**FOR ORCHARDS**—Sow cowpeas broadcast in May or June, 1 to  $1\frac{1}{2}$  bushels per acre, or keep the ground planted in cotton, melons or vegetables. Avoid corn and small grain crops. For stiff soils, devoid of vegetable matter, sow rye, scarlet clover or barley in fall, using 50 bushels of crushed cottonseed or 10 to 15 loads of stable manure per acre, or if the above fertilizers cannot be procured, use from 500 to 1,000 pounds of some good commercial manure, and plow the green crop under in the fall. If devoid of lime or potash, supply the deficiency by a top-dressing of bone meal, plaster, or good commercial fertilizer.

To insure a healthy growth of fruit trees, the land should be kept well supplied with plant food. Lands exhausted by years of cropping cannot return a crop of fruit unless the trees are well cultivated and regularly fertilized. Whenever stable manure is obtainable use it liberally.

## CARE OF TREES ON ARRIVAL

If not ready to plant on arrival, unpack without exposing the roots to cold or air; dig a trench and heel in by carefully covering the roots with earth, and give a copious

**GENERAL INFORMATION FOR PLANTERS—Continued**

watering. Trees thus treated can remain in the trenches until ready for their permanent places in the orchard. If frozen when received, bury the trees and packing material in well-drained ground, or place in a cool cellar until thawed, without exposure to the air or light.

**INSECTS**

The rapid increase of insects injurious to fruit and fruit trees necessarily compels the horticulturist to obtain a knowledge of their habits, that he may provide means to oppose their ravages; otherwise he must remain at their mercy, and find that paying crops become more and more uncertain. The limits of this catalogue allow only space for the enumeration of the most destructive and abundant species which infest the orchards and vineyards, and the best remedies as suggested by leading entomologists.

**APPLES**

**BORER** (*Saperda Candida*)—Examine trees in spring and again in June, and dig out the grubs with a wire. Then wash the collar of roots and part of the body with a mixture of lime and sulphur.

**CATERPILLAR** (*Clisiocampa Americana*)—Destroy nests as soon as they appear in spring.

**APPLE WORM** (*Carpocapsa pomonella*) or **Codling Moth**—Spray with Paris green at the rate of 4 ounces to 50 gallons of water or Bordeaux mixture, after the blossoms have fallen, and before the calyx lobes close. Repeat in one week. It is generally conceded that earlier or later sprayings than mentioned above are of no value when dealing with the codling moth. It is necessary, therefore, to spray just after the petals fall and before the calyx lobes close, in order to fill this cup with poison at the only time it is possible to do so. Bordeaux, not being strictly an insecticide, does not act against the codling moth, but it is always well to use it with Paris green to prevent apple scab or other fungous diseases.

**APHIS, WOOLLY** (*Aphis lanigera*)—Wash trees with solution of whale-oil soap or kerosene emulsion.

**APHIS, ROOT** (*Pemphigus Pyri*)—Scrape the earth away and wash with soapsuds or kerosene emulsion.

**CANKER WORM** (*Anisopteryx vernata*)—Encircle the tree with a canvas belt, coated thoroughly with tar and train oil.

**PEACHES AND PLUMS.**

**CURCULIO** (*Conotrachelos nenuphar*)—Spray the trees before the blossoms open with a solution of Paris green, 4 ounces to 50 gallons of water. Use Bordeaux with Paris green when the blossoms have fallen. Ten days later Bordeaux and Paris green. If peach and plum trees are in foliage, use 3 pounds copper solution, 6 pounds lime, and 50 gallons of water; a stronger mixture will burn the foliage. Then follow with a large hopper, made of sheeting, and having a spread of 10 to 15 feet, having a slit in same so that the tree can be encircled; give the trunk a quick blow with a padded club; this causes the curculio to fall. Dump the insects into a jar of kerosene. Jarring should be done daily, early in the morning and late in the evening, before the insects begin to fly. Continue the jarring until the orchard is rid of the insects.

**PEACH TREE BORER** (*Sanninoidea Exitiosa*)—During November or December, scrape the earth from the collar of the roots, carefully examine the bark for larvae or grubs; apply a wash of lime and sulphur. Early in February apply a handful of un-leached ashes, and earth up the tree, forming a cone of six inches above the surface.

**SAN JOSE SCALE** (*Aspidiotus Perniciosus*)—This attacks, peach, pear, apple, quince, cherry, walnut, raspberry, rose and a number of other trees and shrubs. For winter wash use 20 per cent kerosene in a mechanical mixture with water (Gould or Deming pump); thoroughly spray the trees in the fall as soon as the leaves have fallen. Repeat in the spring, just before the fruit buds open. Select bright, clear days for spraying. When a kerosene sprayer is not at hand, use 2 pounds of whale-oil soap to 1 gallon of hot water; spray while the solution is warm. When trees are in foliage spray with kerosene emulsion, one part of emulsion to five of water, or 15 per cent kerosene in mechanical mixture.

**OTHER SCALE INSECTS**, of which there are several species, which are more or less destructive to fruit and other trees. Kerosene emulsion, whale-oil soap and kerosene in a mechanical sprayer, will eradicate them.

If your trees are infested with any insects or fungous diseases, send infected portion to your experimental station, your state entomologist, or U. S. entomologist, at Washington, D. C.

#### JAPANESE PERSIMMONS, WALNUTS AND PECANS.

**TWIG GIRDLER** (*Oncideres cingulatus*)—All limbs that have been girdled and have fallen must be burned at once, thus destroying prospective broods of sawyers.

**BORER** (*Prionus*)—These bore through the roots, and usually destroy the tree; must be carefully removed. Carefully examine collar of tree in winter and mid-summer, and apply lime and sulphur wash.

**CATOCALA CATERPILLAR** (*Catocala maestosa*)—This insect feeds on the leaves of pecans and is sometimes quite injurious; spray with Paris green, 4 ounces to 50 gallons of water.

#### GRAPE VINES.

**PHYLLOXERA**—Various insecticides are recommended, but must be applied below the ground with the aid of specially constructed apparatus.

**LEAF HOPPER** (*Erythroneura visit*)—Passing with a torch between the rows, in the evening, and shaking the vines to disturb the insects.

**LEAF FOLDER** (*Desmia maculatis*)—Kerosene emulsion or London purple as a spray.

**BORER** (*Prionus*)—Its presence is manifested by the unhealthy appearance of the vine. Search must be made at the roots, and the grub destroyed.

**FLEE BEETLE** (*Haltica chalybea*)—Dust leaves with dry lime.

**GRAPE CURCULIO** (*Caeliodes inaequalis*)—London purple solution as a spray, as soon as fruit is set.

#### STRAWBERRIES.

**BEETLE** (*Haltica ignita*)—Dust leaves with dry lime.

#### FUNGOUS DISEASES.

**PEAR BLIGHT**—The following preventive measures are recommended: As buds are swelling, spray with copper sulphate solution; as blossoms open, spray with Bordeaux mixture (4-5-50); as blossoms fall, Bordeaux mixture and arsenites; 8 to 12 days later, repeat application, and use Bordeaux mixture 10 to 14 days later, and again 10 to 14 days later, if necessary. If blight has occurred, cut off and burn all affected limbs, to prevent spreading.

**APPLE TREE BLIGHT**—May be treated similarly as for pears, but fewer applications are required.

**BLACK ROT IN GRAPES**—Spray with copper sulphate solution in spring before buds swell. When leaves appear, spray with Bordeaux; repeat twice at intervals of 10 to 14 days. Dusting with flowers of sulphur as soon as fruit is set, and repeated every 10 days until coloring, is advisable for mildew, but if Bordeaux mixture is used early it will lessen the appearance of the latter.

**BLACK KNOT IN PLUMS**—Cut off the affected branches below the affected parts, and burn, to prevent its spreading. Spray with Bordeaux mixture.

**RUST ON RASPBERRIES AND BLACKBERRIES**—Spray with copper sulphate before buds swell, and with Bordeaux mixture before flowers open, and again with Bordeaux mixture when fruit is well set. Repeat this at intervals of 10 to 14 days. Dusting with flowers of sulphur when fruit is half grown, and repeated every 10 to 14 days, is advisable if Bordeaux mixture is not used.

**RUST ON RASPBERRIES AND BLACKBERRIES**—Spray with copper sulphate solution before buds break. Use Bordeaux mixture if rust appears in spring or summer.

**PEACH AND PLUM ROSETTE**—Root up and burn the affected trees as soon as the disease is observed.

**PEACH LEAF CURL** (*Exoasca deformans*)—Spray with Bordeaux just before the fruit buds open; only one application is necessary to prevent this disease. If spraying has not been done and the disease appears, continuous cultivation and the application of nitrogenous manures will throw off the diseased leaves, and save the proper fruit.

#### FUNGICIDE AND INSECTICIDE SOLUTION AND FORMULAS.

**Tobacco**, one pound; boiling water, 3 gallons; strain when cool. Very effective when used as a spray against flea beetles, lice, aphides (plant lice).



**Quassia Chips**, 1 pound; boiling water, 3 gallons. This very bitter solution is good for prevention rather than cure. Apply as a spray to rose bushes, and to kill plant lice.

**Pyrethrum**, 1 ounce of the "Bubach" powder, added to 2 gallons of cold water, on any plant used for food, as this is not poisonous.

**Bordeaux Mixture**—Copper sulphate, 4 pounds; quick lime, 6 pounds; water, 50 gallons. Dissolve the copper sulphate by putting it in a bag and hanging it in a wooden or earthen vessel holding at least 4 gallons; slake the lime in an equal quantity of water. Mix and add sufficient quantity of water to make 50 gallons. It is then ready for use, but will not keep more than 24 hours.

**Copper Sulphate Solution**—Dissolve 1 pound of copper sulphate in 15 gallons of water. Do not apply this solution to foliage; it must be used before buds break on grape and peach trees. For the latter, use 25 gallons of water.

**Paris Green**—Actively poisonous. Add 4 ounces to 50 gallons of water. If used upon peach trees, add 1 pound of quick lime, otherwise it will injure the foliage. Paris green and Bordeaux mixture may be applied together without the action of either being weakened.

**London Purple**—Use same proportions as for Paris green, but being very caustic, it should be applied with the lime. Not suited for plum or peach trees, and only for insects that chew.

**Kerosene Emulsion**—One-half pound of soap dissolved in 1 gallon of water; add to this, while hot, 2 gallons of kerosene. Churn violently with a spray pump or garden syringe until the mass becomes of the consistency of butter. Dilute the above mixture with from 9 to 15 parts of water when using, so that it will not be stronger than 1 part of oil to 9 to 15 in water. Sour milk may be used instead of soap.

**White Hellebore**, 1 ounce; water, 3 gallons. Effective as a spray for rose slugs.

**Powders**—With 50 pounds of land plaster mix 1 pint of crude carbolic acid. Sprinkle over vines for beetles and aphides.

**Lemon Oil**—We have found this an invaluable insecticide for all plants grown in greenhouse or in pots. Plants should be dipped in a solution of suitable strength. While it kills all scale insects, it is not injurious to the most tender plants.

#### SPRAYING.

We cannot be too emphatic in impressing on the horticulturist to spray his fruit trees and grape vines if he desires good fruit. Follow directions carefully. Experiments frequently result disastrously. Careless spraying will result in loss of fruit, and sometimes the trees. Every fruit-grower should purchase a spraying apparatus; they can now be had for a small sum. Be careful in keeping your solution continually stirred. The best time for spraying is late in the afternoon or during cloudy weather, except with kerosene; this should be used on bright sunshiny days.

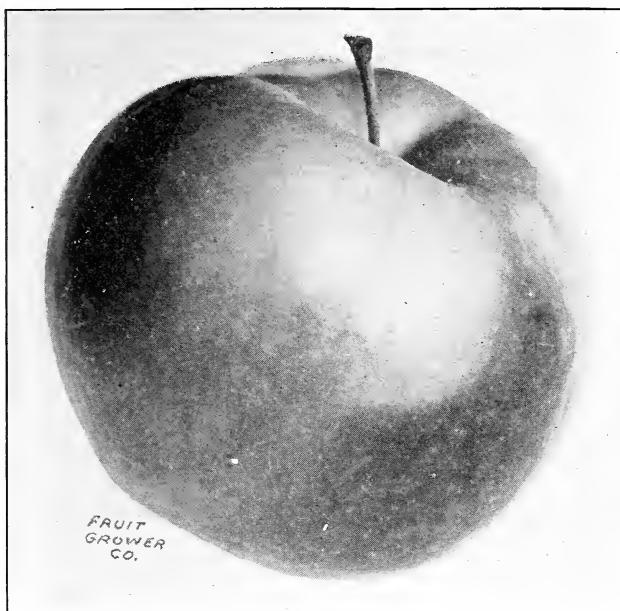
#### DISTANCES FOR PLANTING.

Standard Apples not less than.....	33	feet apart each way.
Standard Pear and large-growing Cherry.....	33	feet apart each way.
Duke and Morello Cherries.....	18	" "
Standard Plum, Peach, Apricot and Nectarine.....	15 to 20	" "
Quince .....	12	" "
Dwarf Pear, Apple and Cherry.....	10	" "
Dwarf Cherries of the Dukes and Morellos.....	8	" "
Currants, Gooseberries and Raspberries.....	4 to 5	" "
Grapes .....	6 to 10	" "

#### NUMBER OF TREES ON AN ACRE AT VARIOUS DISTANCES.

3 feet apart each way.....	4,840	20 feet apart each way.....	108
4 " " .....	2,722	25 " " .....	69
5 " " .....	1,742	30 " " .....	48
6 " " .....	1,210	33 " " .....	40
8 " " .....	680	35 " " .....	35
10 " " .....	435	40 " " .....	27
12 " " .....	302	45 " " .....	21
15 " " .....	193	50 " " .....	17
18 " " .....	134		

## FRUIT DEPARTMENT



Ever-Bearing Red June Apple.

### Apples

We make a specialty of growing fine apple trees. Our list of varieties is very complete as we have a large trade North and South. Our list is carefully selected from the very best. It is always best to leave the selection to us, unless you have some experience in that line. We will always be careful to make selections of varieties best suited to each locality.

#### SUMMER APPLES.

**Astrachan Red**—Large; yellow, nearly covered with crimson; flesh tender, juicy, acid and pleasant; tree a splendid grower. June.

**Carolina Red June**—Medium to large, oblong; deep red, sometimes with splashes of yellow; very tender, juicy and high-flavored. June 15 to middle of July.

**Ever-bearing Red June**—Origin, Georgia. A fine, early apple, ripening about July 1 and continuing in season from six to eight weeks. Red, splashed with dark stripes. Flesh crisp and juicy; quality the best. This is the most valuable early family apple and should be planted by every one.

**Early Harvest**—Above medium size; skin bright yellow; flesh juicy, crisp and well flavored; June.



**Early Ripe**—This fine apple, coming as it does immediately after the Early Harvest, fills a want long felt by the orchardist. Its large size, handsome appearance and good bearing qualities combine to make it the most profitable market variety of its season; the tree is hardy and of vigorous growth; fruit large, yellowish white; flesh white, juicy, sub-acid; fine for the table or cooking; June 15.

**Early Strawberry**—Medium size, nearly covered with red; flesh tender, with a mild, fine flavor; tree a moderate grower and good bearer; June and July.

**Early Colton**—One of the best early apples, ripening with the old Early May, some ten days before Early Harvest, and continues to ripen for two or three weeks, which makes it a valuable family apple. It is of beautiful appearance, medium size, yellowish white, with a tint of crimson where exposed to sun.

**Golden Sweet**—Rather large, pale yellow; very sweet and good; strong grower and good bearer; July.

**Hames**—Originated at West Point, Ga.; large, roundish or roundish oblate; color whitish, striped, splashed and mottled with light and dark red and moderately sprinkled with yellowish and brown dots; flesh white, half fine, rather firm, juicy, brisk, sub-acid; quality good.

**Horse**—Large; yellow, occasional blush next to sun; oblate conical; sub-acid and good; very popular old variety for cooking, drying and cider; August.

**Maiden's Blush**—Generally known; rather large, pale yellow, with red cheek; beautiful; valuable for market; one of the best, if not the best, drying apple; makes a white product; tree a fine grower, hardy and productive; August.

**Striped June** (Syn., Early Red Margaret)—Medium, conical; red striped on yellow ground; tender, rather dry, sub-acid; middle June to middle July.

**Summer Queen**—Medium to large; yellow, streaked with red; flesh tender, with an acid, aromatic flavor; last of July.

**William's Favorite**—Originated at Roxbury, Mass.; highly esteemed; large, oblong, rich, moderate grower and good bearer; July.

**Yellow Transparent**—A Russian apple of great value; above medium size, roundish oblate, highly conical; skin clear white, changing to pale yellow when fully matured; a remarkably early bearer; very prolific; tree a vigorous and upright grower; gives general satisfaction; does well everywhere, and ripens among the earliest; July.

## FALL VARIETIES.

**Bismarck**—This is one of the great German apples; of dwarfish habit; a young and prolific bearer, often bearing at one year of age from graft. Introduced from New Zealand to Germany, and has been successfully tested throughout Europe, as well as the United States and Canada, and wherever grown it has shown astonishing revelation, not only in high quality, but in hardiness, and especially in earliness in fruiting. Where grown in pots it makes quite an ornament for decorative purposes. Fruit brilliant color, very handsome, large tender, pleasant sub-acid and of a distinct and most delicious flavor; a fine dessert and cooking apple.

**Buckingham** (Syn., Equinetelee, Kentucky Queen, etc.)—Very large, oblate; yellow, with bright red cheek and crimson stripes; flesh yellow, sub-acid, very rich and juicy; a magnificent fruit; ripe by end of September, and lasts until December; tree compact and vigorous grower; bears young.

**Fall Pippin**—Very large, roundish oblong; yellow, flesh tender, rich and delicious; subacid; September and October.

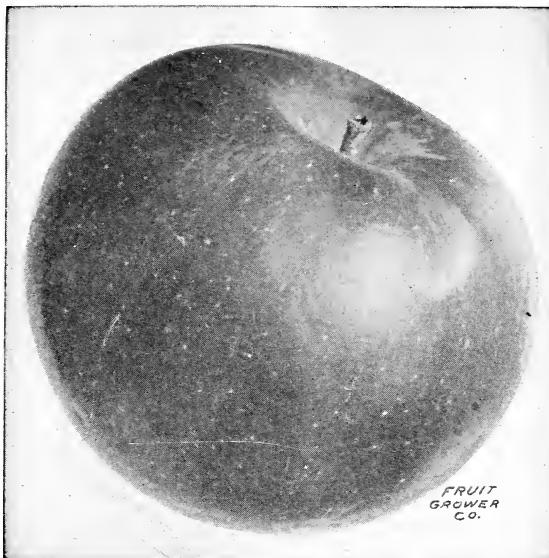
**Grimes' Golden Pippin**—Medium; oblong; rich yellow; flesh yellow, rich, with a very delicate, fine flavor; October.

**Munson Sweet**—Large, pale, yellow, with red cheek; tender, rich and good; fine grower and bearer; October to December.

**Rome Beauty**—Large; roundish, slightly conical, with bright red on a pale yellow ground; fine-grained, juicy; good quality.

## WINTER VARIETIES.

**Arkansaw** (Mammoth Black Twig)—Originated in Arkansas many years ago; is now being largely planted wherever known in all parts of the United States; size large, roundish, slightly flattened; color a bright mottled red on upper half, the lower



half being reddish yellow; flesh yellow, fine grain with a mild, pleasant, sub-acid flavor; tree a strong grower and an abundant bearer; supposed to be a seedling of the Winesap.

**Arkansas Beauty**—A recently introduced variety; large, beautiful light crimson in the shade, darker in the sun, with indistinct splashes and stripes over whole surface of dark crimson; flesh fine grained, whitish, tinged with red and yellow; rich sub-acid; quality very good to best; November to March.

**Arkansas Black**—Tree a beautiful upright grower; young wood very dark. "There is scarcely an apple that is more brilliantly colored; round or slightly conical, regular; smooth, glossy, yellow where not covered with deep crimson, almost black; flesh very yellow, firm, fine-grained, juicy, sub-acid, pleasant, rich." A long keeper; a most profitable and attractive market apple, has been kept till June and later.

**Albemarle Pippin**—Fruit large, round, lop-sided, ribbed and irregular; surface smooth, yellowish green, sometimes bronzy, becoming yellow when ripe; flesh yellow, firm, brittle, juicy; flavor acid, rich, agreeable; tree a slow grower in the nursery; January to April.

**Ben Davis** (New York Pippin)—Large size, round to oblong; skin yellow, splashed with bright red; flesh whitish, tender and juicy, with sub-acid flavor; tree remarkably healthy and vigorous, and an early and abundant bearer; a most profitatble winter apple; keeps well.

**Black Twig**—Resembles the Winesap in every way, except that the tree is a better and much more vigorous grower, more hardy, and the fruit is much larger, many specimens being 12 inches in circumference.

**Baldwin**—Large, roundish, narrowing a little to the eye; skin yellow in the shade, but nearly covered and striped with red and orange in the sun; flesh crisp, juicy and sub-acid, rich; tree a vigorous grower and bears abundantly; succeeds well in Western Maryland and the mountains of Virginia, but drops its fruit too early in or near the tide-water section; October to January—later in the mountains.

**Ball's Choice**—This famous apple originated with Mr. Sandusky of Giles County, Tenn. The original tree was a chance seedling, and grew to an immense size, and lived to be about 60 years old. It bore heavy crops every year, and was loaded with fruit when blown down during a storm. Apples have been kept from November to June in perfect condition. It is unsurpassed in quality, flavor and beauty, and should be planted by all who appleciate a long-keeping winter apple in the South. In color it is a beautiful



golden yellow, bordering to red next the sun. In shape it is rather flattened, but smooth and perfect.

**Golden Russet**—Medium size; dull russet with a tinge of red on exposed side; flesh generally crisp, juicy and high flavored; tree a vigorous grower and great bearer; December to May.

**Gano**—Tree very healthy, vigorous, hardy, having stood 32 degrees below zero without injury; a rapid grower, large and spreading in orchard, fruit spurs numerous, shoots long and smooth, brown, with protuberances on the limbs like the Ben Davis; an early, annual and prolific bearer; foliage large and dark, February to May.

**Jonathan**—Fruit medium, roundish; skin yellowish, nearly covered with dark or lively red; fine grained, very tender and finely flavored; mod; October to December.

**Kinnard's Choice**—Tennessee origin; size large; color dark red on yellow ground; beautiful, large, showy apples; bears quite young; quality one of the best; a fine winter apple for Piedmont and mountain sections.

**L. S. Pearmain**—Large; yellow, striped, splashed and shaded with red; flavor mild, rich and pleasant, sprightly sub-acid; very good; a valuable market apple; tree a vigorous grower.

**Missouri Pippin**—Large, oblong; bright red, with darker red stripes; very handsome; fair quality; a good grower and an early and immense bearer; often fruits at two years in nursery rows; valuable for market; December to April.

**Northwestern Greening**—Large; yellow and rich; exceedingly hardy, and claimed to be an extra long keeper; new.

**Northern Spy**—Large; roundish, slightly conical, somewhat ribbed; striped, with the sunny side nearly covered with purplish red; flesh white and tender, with a mild sub-acid, rich and delicious flavor; tree is a strong, upright grower and forms a very compact head; should be kept open by pruning, so as to admit the air and light freely. Begins to bear late.

**Paragon**—This apple originated in Tennessee, and has proven to be identical both in tree and fruit to the Arkansaw. So these two apples are so near alike they are called twin sisters. They are now fast pushing their way to the front as leading winter apples for home consumption, as well as for market. They are both seedlings of the old well-known Winesap; nearly twice as large; equally as good, if not better, in quality, and superior keepers.

**Red Limbertwig**—Medium; roundish; dull red on pale yellow ground; December to March.

**Royal Limbertwig**—Very large; pale yellow, blushed or striped with red; rich, juicy and very good; November to February.

**Rawle's Janet**—Medium, roundish, ovate; greenish yellow, striped with red; crisp, rich and juicy; one of the best and longest keepers in the South and Southwest.

**Stayman's** (Stayman's Winesap)—Medium to large, oblate, conical; greenish yellow, mostly covered and indistinctly splashed and mixed with dull dark red, with numerous gray dots; flesh yellow, firm, tender, juicy, mild sub-acid, aromatic; quality best. Another seedling of Winesap, originated in Kansas; is larger and more beautiful.

**Stark**—A long keeper and a valuable market fruit; fruit large, roundish, oblong; skin greenish yellow, much shaded with light and dark red, and sprinkled with brown dots; flesh yellowish, juicy, mild sub-acid; January to May.

**Willow** (Willow Twig)—Large, roundish; greenish yellow, striped with dull red; flesh firm, rather tough; valued for long keeping.

**Winesap**—Medium to large, red, firm, sub-acid; tree an excellent grower; good keeper.

**York Imperial or Johnson's Fine Winter**—Large; truncated oval, angular; greenish yellow, nearly covered with bright red; flesh tender, crisp, juicy, aromatic; an enormous bearer, and hangs well on the tree; it is also a good keeper, retaining its flavor to the last; February to April.

#### CRAB APPLES.

Crab apples succeed in all sections, and are valuable for cider, preserving jelly or ornament, and some of the improved sorts are excellent for eating. Sent to the Eastern markets they are a ready sale.

**Hyslop**—Almost as large as Early Strawberry apple; deep crimson; very popular on account of its large size, beauty and hardiness.

**Hughes' Virginia Crab**—Small, dull red, with white specks; flesh fibrous, with an acid, rough and stringent flavor.

**Red Siberian Crab**—Quite small—a little over an inch in diameter; nearly round, with a brilliant scarlet cheek, on a pale, clear, waxy yellow ground; stalk very long and slender; tree productive, and bears when very young; quite ornamental; good for preserving; September to October.

**Transcendent Crab**—Fruit large for its class; golden yellow, with a beautiful, rich crimson cheek; when ripe the red or crimson nearly covers the fruit; tree a rapid grower, and productive; September.

## Pears

The growing of this valuable fruit for both home and market purposes cannot be too strongly urged. It far exceeds the apple in its melting, juicy texture, rich, refined flavor, and the range of varieties is such that, by a judicious selection, the ripening season, beginning in July, can be continued in succession into winter. It is a mistaken opinion among some persons that standard pears are a long time coming into bearing. Many of the varieties begin to bear in four to six years after transplanting, and some of the newer varieties, such as the Keiffers, will produce fruit as soon as the dwarf pear, which is usually two to three years after transplanting. The pears when once in bearing seldom fail to produce a crop of fruit annually.

**Gathering Pears**—In order to retain the juice and best flavor, summer pears should be gathered at least ten days before they are ripe, and autumn pears at least two weeks; winter varieties as soon as the leaves begin to drop.

**Thinning the Fruit**—When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

We grow none but the very best varieties, having discarded those that we have learned from experience are not desirable. The list we offer, while perhaps not as lengthy as some others, is composed of the best tested varieties to be had. New varieties will be added from time to time, as fast as their merits prove them to be worthy of propagation.

#### SELECT LIST OF PEARS.

##### Summer and Autumn Pears.

**Koonce**—New; originated in Illinois, and described as the best very early pear, ripening two weeks before the Early Harvest; medium to large size; yellow, one side of which is covered with red; does not rot at the core; very productive; handsome; a good shipper; profitable; tree vigorous, upright and free from blight.

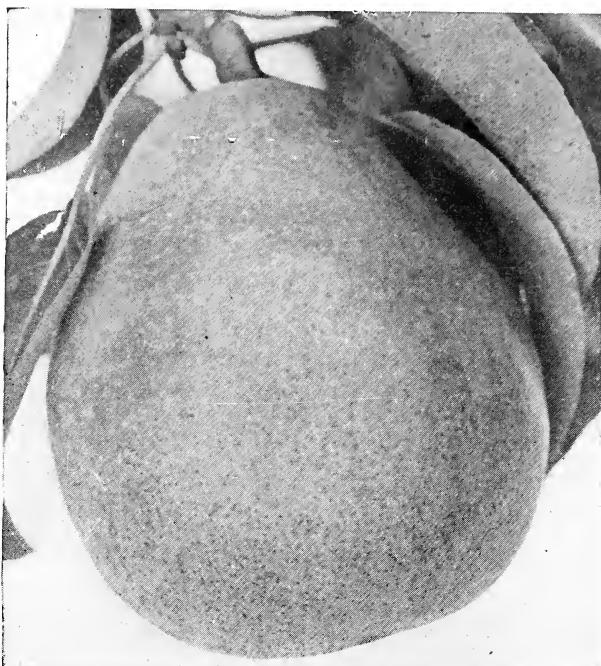
**Early Harvest**—Tree robust and free from blight; size medium; fair quality; color yellow, with red cheeks; ripens with the earliest, and is justly classed as a market pear.

**Seckel**—Small, short, pear-form; yellowish brown, with russet-red cheek; rich, juicy and melting; August.

**Bartlett**—Large; pear-shaped; yellow; rich, juicy and very fine; the most popular variety of its season; early in August.

**Osband's Summer**—This is one of the old hardy standard pears; of medium size and clear of blight; prolific bearer and good quality; ripens in July.

**Buffum**—Medium; ovate; yellowish, with a broad, reddish cheek, somewhat russeted; buttery, sweet; very good; August.



*Buerre d'Anjou.*

**Wilder**—Small and medium; bell-shaped; yellow ground, shaded carmine; flesh whitish yellow, fine grained, tender, sub-acid; vigorous grower; early and annual bearer; very productive; good quality and one of the first to ripen; probably the best early market variety; ripens with Alexander peach.

**Sheldon**—Medium; yellow, on a greenish russet, with a richly shaded cheek; flesh a little coarse; melting and juicy, with a brisk, vinous flavor; highly perfumed; productive; September.

**Clapp's Favorite**—Large, resembling Bartlett; ripening a few days earlier; productive; last of July.

**Duchess d'Angouleme**—Very large; dull yellow; buttery, rich, juicy and excellent; does best as a dwarf; August.

**Flemish Beauty**—Large; greenish yellow, russeted; sweet and rich, excellent flavor; productive; July.

**Howell**—A fine, large pear, sweet and melting; pale yellow, with a red cheek and patches of russet; June and July.

**Buerre d'Anjou**—Rather large; obtuse form; greenish yellow; dull red cheek; rich, melting and buttery; succeeds best as a dwarf. October.

**Tyson**—Medium or large; bright yellow, with a reddish brown, softly shaded cheek, sometimes russeted; flesh of fine texture, buttery, very melting, juicy; flavor nearly sweet, aromatic, slightly perfumed; excellent; August.

**Comet, or Lawson**—This pear is now attracting a good deal of attention, and promises to be a profitable sort for the early market. The tree is a vigorous grower and very productive; fruit above medium size, and of most beautiful crimson color, on yellow ground; flesh crisp and pleasant, though not of best quality; ripens early in July.

**Dewey's Premium**—Of original type; originated in Ohio; the fruit is large, beautiful golden russet, flushed with red to the sun; the quality is good, but like most pears it should be picked before fully ripe and ripened slowly to attain perfection; bears early; very productive; excellent for market and canning; fall.

**Mackleroy Pear**—This wonderful pear was brought to Franklin County, Tenn., by Mr. Davis Mackleroy, from South Carolina, over one hundred years ago (he was the first settler in this county). The tree has not failed to bear a single crop in its history. Ripens here about the 15th of June. The tree is now living and promises to bear several more crops.

#### WINTER PEARS.

**Lawrence**—Medium; short; pear-shaped; pale yellow; rich, juicy and excellent; early winter.

**Vicar of Wakefield**—Large; long pyriform; pale green; keeps well.

**Easter Beurre**—Large; roundish; pale greenish yellow; juicy and excellent; early winter.

**Duchesse de Bordeaux**—Medium; yellow, with some russet; rich, juicy and very good; October and November.

**Winter Nelis**—Medium size; yellowish green and russet; fine-grained, melting, rich and delicious; one of the best winter pears; very productive; December.

**Lincoln Coreless**—Originated in Lincoln County, Tenn. Fruit very large, handsome appearance, good quality and very few, if any, seeds; so clear of core and seed, whence its name; one of the best keepers of winter pears; golden yellow; tree a good grower and very productive; has never been known to blight.

#### ORIENTAL VARIETIES.

Especially recommended for planting in the South. This class of pears is as near blight-proof as any pear can be called, as they are very vigorous growers, and they resist the blight better than the other varieties. Keiffer especially should be largely planted.

**LeConte**—Fruit large and fair quality; young and prolific bearer; an upright, very straight grower; tree very hardy, and its beautiful fruit and foliage make it quite ornamental; ripe in September in North Carolina.

**Japan Golden Russet**—Unusually productive, bearing in clusters; commencing to fruit two years after transplanting from the nursery; valuable for canning; of strong, luxuriant growth, large, dark green leaves until late in the season, when they become a beautiful bronze, changing to a brilliant crimson, and with branches bending under their loads of golden russet pears it is a thing of beauty, and an ornament in any lawn or fruit garden; the fruit is of medium size, flat or apple shaped.

**Garber**—Equally as hardy as the LeConte or Keiffer; of same class of pears; the growth and appearance are very much like Keiffer; ripens one month sooner and of better quality.

**Keiffer's Hybrid**—Originated near Philadelphia; supposed to be a seedling of a Chinese Sand Pear crossed with the Bartlett; size large, very handsome; skin yellow with a bright vermillion cheek; very juicy, with a musky aroma; quality good when ripened to perfection; a very young and prolific bearer; as near blight-proof as a pear can be called.

**Magnolia**—Origin, South Georgia; large to very large; broad to roundish pyriform; surface smooth, yellowish russet, tinged with red and brown on the sunny side; dots numerous, irregular; flesh white, crisp, tender, juicy, mild sub-acid; quality good; valuable for canning and preserving; season three or four weeks later than Keiffer; very valuable on account of its lateness, coming in after the Keiffer is gone. It belongs to the Oriental class of pears, and is equal in quality to the best of that class. Being the largest and latest of the Oriental class, its value is apparent. A prolific bearer; a thrifty, dwarfish grower.

## Quinces

The quince is of late attracting a great deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. The tree is hardy and compact in growth, requiring but little space; productive, gives regular crops, and comes early into bearing. The fruit is much sought after for canning for winter use. It flourishes in any good garden soil, which should be kept mellow and well enriched. Prune off all the dead and surplus branches, and thin out the fruit if bearing too freely.

**Orange or Apple**—Large, orange-shaped and of excellent flavor; the finest of the old varieties; trees bear young and are very productive.

**Champion**—The tree is strong, free grower, more like the apple than the quince, and usually comes into bearing the second or third year; very productive, and of the largest size; flesh cooks very tender, and is free from the hard spots or cores found in other varieties; flavor equal to that of the well-known Orange variety; ripens about two weeks later.

**Meech's Prolific**—Fruit of large size; very handsome and attractive; of delightful fragrance and delicious flavor; cooks as tender as a peach; remarkable for early bearing and great productiveness.

**Missouri Mammoth**—The largest quince in cultivation; brought into notice in the vicinity of Kansas City, Mo., where it is fruited extensively, and is attracting great attention on account of its being large in size, perfect in shape, very rich and aromatic; tree vigorous, productive, an early bearer and free from blight.

## Peaches

The question has often been asked, "How can I keep borers out of my peach trees?" Go through your orchard, and where you find gum at surface, clean the dirt from around it, and with a knife or some sharp-pointed instrument, follow up the worms and kill them; then throw around the tree a little lime or ashes. Attend to this two or three times during the spring or summer, and you will keep your trees healthy, as well as greatly extend their useful life.

**Peach-Borer Wash**—Take half or three-quarters of a pound of tobacco, plug or leaf, break or cut it up, and boil it well in about a gallon and a half of water, strain out the tobacco, and to the liquid add a pint of salt, from a quarter to a half a pound of carbolic soap, and enough freshly slacked lime to make a pretty thick wash.

**Second Receipt**—This is highly recommended, and we consider it the most effective. For a 50-gallon cask, 25 pounds of caustic potash, 3 pounds of common white arsenic, 2 gallons of crude carbolic acid (with water, lime and clay enough added to make a good, thick wash that will last on the tree three or four months.)

Early in the spring scrape the dirt away from the trunk of the tree as deep as the tap roots, and with a paint or whitewash brush apply a coat of the above wash from a foot above the ground down to the roots. When dry replace the soil around the trunk. Should a washing rain, during the spring or early summer, dissolve or carry off this wash, it must be renewed. The above is to be used as a preventive, not to destroy the borers within the bark, but to prevent the deposit of eggs by the borer-moth during the spring and summer months.

Peach, Plum, Apricot and Nectarine trees should all have the above care. To keep your fruit clear of worms, allow no fruit to drop and rot in your orchard. Keep enough hogs to eat it up. Keep it picked up clean and give it to them, or let them run in the orchard and get it themselves as fast as it falls, thereby destroying both worms and eggs, and preventing an increase next year. Reasonable attention to these matters will go far to assure your success in fruit-growing.

**Pruning**—In February, or as early in spring as may be practicable, we commence pruning. This consists only in shortening, i. e., cutting off half the last year's growth over the whole outside head of the tree and also upon the inner branches, shortening back the strongest limbs most. This brings the tree into a well-rounded shape. By reducing the young wood one-half, we at the same time reduce the coming crop one-half in quantity. The remaining half, receiving all the substance of the tree, is of double the size. The young shoots which start out abundantly from all parts of the tree keep it well supplied with bearing wood for the next year, while the greater luxuriance and size of foliage, as a necessary consequence, produce larger and higher flavored fruit. Thus while we have secured against the prevalent evil, an over-crop, we have also provided for the full nourishment of the present year's fruit, and induced a supply of fruit-bearing shoots throughout the tree for the next season. This course of pruning should be followed regularly every year during the life of the tree. It is light work and quickly done, and doubles the value of the fruit. The appearance of a tree pruned in this way after many years of bearing, is a very striking contrast to that of the skeleton usually seen. It is, in fact, a fine object, with a thick, low, bushy head filled with healthy young wood, and in summer with an abundance of dark green foliage and handsome fruit. No intelligent man will hesitate about adopting so simple a course of treatment to secure such valuable results. We recommend it with entire confidence to the practice of every man in the country who cultivates a peach tree. After he has seen and tested its good effects we do not fear his laying it aside.—Downing.

#### SELECT LIST OF PEACHES

The following is a select list of peaches, ripening from May 15 to November, according to location and climate, and we do not hesitate to say the collection cannot be surpassed, if equaled, in the Southern or border states. Varieties are arranged below in order of ripening as near as possible for Tennessee. In South Carolina and Georgia they will ripen from six to ten days earlier; in Alabama and Mississippi from ten days to two weeks earlier; north of Tennessee they ripen later; in Virginia from four days to a week later; ten days to three weeks later in Maryland and Delaware; about five weeks later in Northern New Jersey, and five to six weeks later in New York state. Note the time of ripening of certain varieties in your section, compare same with our catalogue and you can tell the difference in time of ripening at the different places.

**Mayflower**—A gloriously beautiful "red all over" peach, so handsome and of such splendid quality that it tops all markets. Every commercial orchardist should plant them—they should be in every home garden everywhere. Extremely early, tree hardy and healthy. Since the acquisition of Mayflower with its remarkable record made in the great orchards of the veteran peach grower, J. Van Lindley of North Carolina, (the introducer of Greensboro) we have discarded such sorts as Victor, Sneed, and others of that class. N. C. S.

**Alexander**—One of the earliest peaches; fruit medium size, nearly covered with crimson; flesh white and good; valuable market variety south; bears very young; June.

**Admiral Dewey**—We consider the Admiral Dewey the most valuable early peach yet introduced. It has all the grand qualities of the Triumph, without its defects; it ripens with the Triumph, is an early and abundant bearer, a vigorous and symmetrical grower, with hardy wood, and a perfect freestone, with a very small stone. Flesh of uniform yellow to the stone and of excellent quality, round, very firm; color beautiful yellow ground with lively red on the sunny side; as large as the Triumph, and is an excellent shipper. No one can afford to be without this new variety.

**Arp Beauty (Semi-Cling)**—Yellow, blushed and mottled bright crimson, very attractive, firm, juicy, excellent flavor; an extra good shipper. Tree a strong grower, prolific and hardy, reaching its perfection in Washington and Oregon. Stark June Elberta is superior to Arp Beauty; both are valuable. One year. CS.

**Belle of Georgia**—Very large; skin white, with red cheeks; flesh white, firm and excellent flavor; the fruit is uniformly large and showy; very prolific bearer. A seedling of Chinese Cling. Freestone.

**Burke**—Very large; roundish oblong; skin pale cream color, slightly shaded on sunny side with red; flesh white, juicy, melting, sweet and vinous, making it one of the largest, best and showy clingstone peaches; last of July.

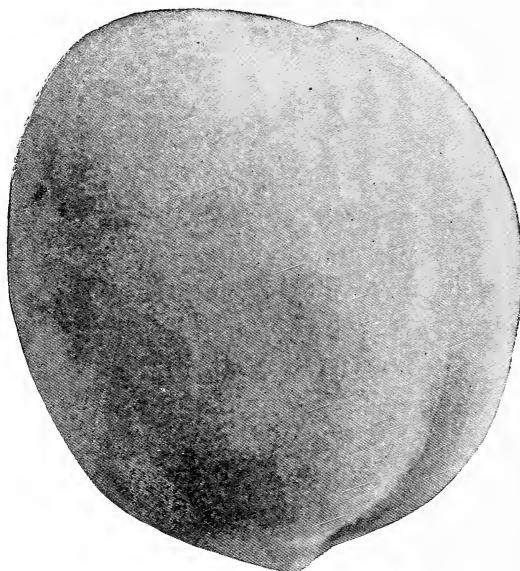


**Chinese Cling**—Large; skin transparent, cream color, with marble of red next the sun; flesh creamy white; very juicy and melting, July 25.

**Captain Ede**—A large freestone peach; a seedling of Chinese Cling. Originated in Southern Illinois. Very prolific and hardy; a large, beautifully-colored yellow-fleshed peach of finest quality; ripening with Early Crawford—about the middle of July.

**Crosby**—Originated near Billerica, Mass., and noted on account of its hardiness. Fruit medium size, roundish, slightly flattened, with a distinct seam; color bright orange yellow, with a very bright red cheek; flesh yellow, mild and pleasant; August 1.

**Champion**—A Western peach of very large size and good quality; also noticeable for the regularity of its bearing; skin is of a rich creamy white, with a red cheek; flesh creamy white, sweet and delicious, rich and juicy; July 20.



**Elberta.**

**Carman**—In this new, hardy root-proof peach, ripening at same time as Early Rivers, and yet almost as large and fine as Elberta itself. We have a peach of great market value; a large, roundish peach, with pale yellow skin, red blush on sunny side; white flesh, tender and melting; rich, sweet and superior flavor; by far the finest of any peach ripening ahead of the Mountain Rose. A big, early, yellow-skinned peach of high quality is sure to be in great demand. June 20.

**Crawford's Early**—Large; oblong; skin yellow, with red cheek; flesh yellow, melting, sweet and rich; July 10.

**Crawford's Late**—Large; yellow, with red cheek; fine quality; very popular old variety for market and canning purposes; freestone; August 10.

**Chair's Choice**—Originated in Maryland. Large; yellow, with red cheek; next the sun; a clear yellow freestone of fine quality; ripe late in August.

**Chinese Free**—Seedling of Chinese Cling; size large; roundish, oblong; skin white, with red cheek; flesh red, firm and well flavored; desirable market variety; ripens with Chinese Cling.

**Emma**—This peach is very large; yellow, with light crimson cheek; flesh yellow, fine grained, very juicy; quality best; freestone; in maturity it follows immediately after Elberta; where this peach has been shipped to market it has always commanded an extra price over the other varieties; it is better in quality than the Elberta.



**Elberta**—Large, yellow, with red cheek; flesh yellow, firm, juicy, of high quality; exceedingly prolific, sure bearer and hardy; is doing well in all peach sections north and south; one of the leading market varieties; August 1.

**Everbearing Peach**—This is one of the most remarkable peaches, as it combines many desirable qualities which make it of great value for family use.

1. Its long continued bearing period. The first ripening begins about July 1, and successive crops are produced until the beginning of September. Fruit in all stages of development—ripe and half grown—may be seen upon the tree at the same time. Our two-year-old trees are fruiting this year.

2. As the tree blossoms during a long period, a complete failure of fruit has never happened since the original tree first began to bear eight years ago.

3. The fruit is creamy white, mottled and striped with light purple and pink veins; oblong in shape, and tapering to the apex; flesh white, with red veins near the skin; very juicy, vinous and of excellent flavor; quality very good to best; freestone, of the Indian type.

The first ripening averages  $3\frac{1}{2}$  inches long by 3 inches broad. The size of the fruit of the second and following crops diminishes gradually until that of the last ripening is about two inches in diameter. A supply of fruit may, therefore, be secured from the same tree for nearly three months in succession.

We do not recommend the Everbearing peach for commercial orchards, but for family use, or small gardens. Where there is room for only a few trees, its value is unquestionable. We offer with confidence, as we have known the original tree for the past four years, and gathered the fruit in various stages of development.

No discount on price, regardless of the size of trees or quantity ordered. No buds or grafts for sale.

Descriptions taken from catalogue of P. J. Berekmans Co., from whom we got our stock to cultivate from.

**Foster**—Large, deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor; ripens with Early Crawford; handsome.

**Fitzgerald**—An improved Early Crawford, being fully equal to it in size, quality and color; in Canada and Michigan has proven one of the hardest; fruit large, brilliant color, bright yellow, suffused with red; small pit; flesh deep yellow; best quality; last of July.

**Family Favorite**—Large, white flesh, red cheek; freestone; sure bearer, prolific; seedling of Chinese Cling. This peach is making a favorable record wherever known. Season middle of July.

**Greensboro**—Originated by W. G. Balsey in Greensboro, N. C. This is the largest of all the early peaches; twice the size of Alexander, and beautifully colored with light and dark red, shaded with yellow, which makes it a great beauty; size large for so early a peach; ripens perfectly to the seed, from which it parts clear when fully ripe; ripens with Alexander; flesh white, juicy, good. One of the very best family peaches, but, like old Early Rivers, rather tender.

**General Lee**—Above medium, oblong, creamy white, with carmine wash; flesh very fine-grained, melting, very juicy and of high flavor; quality best; improved Chinese Cling; July 1 to 10.

**Globe**—Fruit large, globular in form; flesh firm, juicy, yellow, shaded with reddish crimson toward the pit; good quality; September.

**Governor Hogg**—A fine new peach from Texas, of the Chinese strain. A specimen sent us by mail last year showed as large as Elberta, but it is two weeks earlier. Will carry well, and hence a fine market peach. Trees fine, with white flesh and bright red cheek; flavor rich, melting and juicy.



**Heath Cling**—Large, oblong, creamy white, slightly tinged with red in the sun; very tender, juicy, melting, very rich and luscious; September 15.

**Henrietta** (Levy)—Most magnificent yellow cling known; of largest size, mostly covered with bright crimson; hardy, productive, sure bearer; always commands fancy prices. September 15.

**Hiley (Early Belle)** (Freestone)—One of the finest shippers among early sorts, and a long keeper. Large, white and highly colored on sun-exposed side—one of the overlooked good things in peaches. Commercially it is proving one of the most profitable—plant it largely. Very hardy in wood and bud. One year. NNCS.

**Salway** (Freestone)—A strong growing, productive tree, well known and popular. Fruit is large, dull yellow, mottled with brownish red. CS.

**Indian Blood Cling**—Large size, color dark claret, with veins, downy; flesh deep red, very juicy, fine flavor; tree an irregular grower; October.

**Indian Blood Free**—Medium to large size; blood red throughout; tree hardy and good bearer; September.

**Kalamazoo**—Medium size, yellow, shaded with red; juicy, rich, melting; highly esteemed in Michigan; middle of August.

**Lady Ingold**—Fruit about same size as Early Crawford, which it resembles very much, but is its superior in quality; a desirable peach for market, evaporating, canning and general use; freestone; July 15.

**Mammoth Cling**—Resembling Heath Cling, but double its size; originated in Southern Missouri; September 20.

**Mountain Rose**—Large, white, with red cheek; flesh white, rich, juicy and fine; freestone; July 15.

**Nicholson's October**—Extra large, greenish yellow; one of the best late varieties. Ripens here about 10th of October. Extra fine peach.

**Reeves' Favorite**—Fruit very large, round, skin yellow, with fine red cheek; flesh deep yellow, juicy, melting and excellent; tree hardy and productive; one of the best and most reliable yellow market peaches; last of July; free.

**Susquehanna**—A very handsome and valuable peach; originated on the banks of the Susquehanna river, in Pennsylvania; a great favorite wherever known; fruit of the largest size, sometimes measuring 12 inches in circumference; skin rich yellow, with a beautiful red cheek; flesh yellow, juicy, sweet, with a rich, vinous flavor; the best of all yellow-fleshed peaches; freestone; a moderate bearer; August 25.

## Cherries

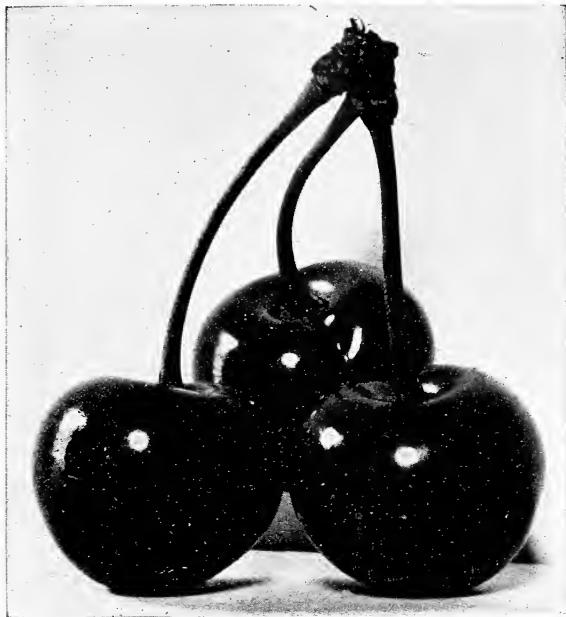
This fine fruit succeeds well in this latitude, and the farmer who does not have a dozen or more cherry trees in his orchard is missing a great many of Nature's richest gifts. Further south the sour cherries do not do so well, but the sweet varieties will pay moderately well.

### HEARTS AND BIGGAREAUS

**Black Tartarian**—Large, dark red, nearly black; ripe middle of May.

**Governor Wood**—Large, light yellow; season middle of May.

**Windsor**—Large, black, and one of the best; middle of May.



May Duke

## DUKES AND MORELLOS

**May Duke**—Rather large, dark red; May 20.

**Early Richmond**—Medium, red; middle of May.

**Morella**—Full medium size, very hardy and prolific; June.

**English Morello**—Above medium, very dark red; May 20.

**Montmorency**—Similar to Early Richmond, but larger, and about 10 days later.

**Olivet**—Large, red; middle of May.

## Apricots

Apricots are among the most delicious of fruits and will succeed where the proper care is given to protect them from late freezes. A sheltered location is best. They succeed best in towns and cities when planted in the yard near the house. We grow the best Russian and Japan sorts, as well as the domestic varieties.

**Acme**—A new apricot from Northern China, which was given to Prof. J. L. Budd by a returned missionary. The tree is an immense grower, very hardy and productive; fruit the very largest size; a sweet and delicious freestone; yellow, with red cheek.

**Breda**—Small, dull orange, marked with red; juicy, rich and vinous; productive and hardy; free; first of July.

**Early Golden** (Dubois)—Small, pale orange; juicy and sweet; hardy as the Russian apricot, and productive; vigorous. First of July.

**Moorpark**—One of the largest, orange, with a red cheek; firm; juicy, with a rich flavor; very productive; vigorous. July.

**Royal**—Large, yellow, with an orange cheek; juicy, rich and delicious; a very fine variety, and well deserving a place in collections; vigorous. July.

**Russian Apricot**—A new variety of recent introduction, valuable on account of extreme hardiness of trees and fine quality of fruit.

**JAPAN APRICOTS**

Japan seems to abound in many wonderful and delicious fruits, and in those that succeed well all through the South. Many of them succeed in the border states, and as far north as New England. The most remarkable of recent introduction, and just offered to the public, are the three varieties of Japan apricots, excelling American or Russian varieties in vigor of growth, hardiness and excellent quality; commencing to ripen in Mississippi the middle of May, and ripening in Tennessee the middle of June.

**Hubbard.****Gold Dust.****Bengoume.**

## **Japan Persimmons**

Fruit very large; flesh soft, luscious, with a slight apricot flavor, and without the stringency of the common persimmon. In its fresh state the Japan persimmon ranks with the peach or orange, and when dried is equal to the best Smyrna fig. Like the fig, there are different varieties of the fruit. Has fruited all through the South, and proved a grand accession to our Southern fruits. It is common to see trees loaded with fruit two years after planting. Of great value to the cotton states, as well as being very ornamental. We grow all the best and hardiest varieties.

## **Everbearing Mulberries**

But few know the value of this wonderful and prolific fruit. For poultry and swine there seems to be nothing better. Many farmers who have them in bearing claim that one tree is worth a barrel of corn each year. Wherever it is known large orchards are being planted. The trees commence bearing very young. By the fourth year they are in full bearing. They commence to drop their fruit in June, and continue several weeks. Should be on every farm. No one who is acquainted with them can afford to be without them.

**Black English**—The best black; hardy and prolific.

**Hicks**—Black and fine, but does not commence dropping its fruit as early in the season as the Black English; continues in bearing four months.

**White**—Not so large, but equally as valuable.

**Russian**—Dark red; very prolific.

**New American**—Black, very prolific; one of the best.

**Downing**—Fruit of a rich sub-acid flavor; lasts six weeks; stands winter of Western and Middle states.

## **Figs**

This fruit is too well known in the South to need a description. We grow the following varieties. The Carter's Choice is the largest and finest fig we ever saw. Large, white with yellow bloom. Very hardy and prolific. Celestial is a great favorite and succeeds well all over the South.

**Celestial.**    **Carter's Choice.**    **Neverfail.**    **Brown Turkey.**    **Lemon.**    **Brunswick.**

# Grapes

## BLACK GRAPES

**Campbell's-Early**—Its strong, hardy, vigorous growth; thick, heavy foliage; very early ripening and abundant bearing of large and handsome clusters of excellent quality, combined with the most remarkable keeping and shipping qualities, form a combination equaled by no other grape. Ripens with Moore's Early, but, unlike that variety, it has kept sound and perfect, both on and off the vine, for weeks after ripe. In quality it is unrivaled by any of our early market grapes. It is, both as to cluster and berry, of large size, of a glossy black color, with a beautiful blue bloom; pulp sweet and juicy; free from foxiness; seeds small, few in number and part readily from the pulp.

**Clinton**—Bunches medium size, compact shouldered; berries small; flesh acid vinous flavor; vines hardy, vigorous, productive, but fruit improves by hanging long on the vines.

**Concord**—Bunches large, berries large, round; skin thick and covered with bloom; flesh juicy, sweet; vine very hardy, vigorous and productive. At present the most popular of all our native sorts.

**Hartford Prolific**—Valuable in northern localities; bunches large, compact shouldered; berry large, round, skin thick; flesh sweet, juicy; vine vigorous and exceedingly productive; ripens two weeks before the Concord.

**Ives**—Hardy and productive; valuable for market on account of its productiveness.

**McPike**—This grand variety was originated in Southern Illinois; has taken premiums at Ohio, Illinois, Indiana and Missouri State Fairs. The McPike is a seedling of the Worden, perfectly hardy, with a leaf unprecedented; it is earlier than the Concord, bunches large, even and compact; berries even in size, covered with a beautiful bloom, blue-black in color; ripens uniformly and has generally the appearance of the Worden. The berries are of mammoth size, being three inches in circumference and of superb quality—by far the best grape grown.

**Moore's Early**—A seedling of the Concord, combining the vigor, health and productiveness of its parent, and ripening a few days earlier than the Hartford; bunch medium; berry quite large; color black, with a heavy blue bloom; its extreme hardiness and size will render it a popular market sort.

**Wilder** (Rogers No. 4)—Bunch and berry large, black; pulp tender, juicy, rich and sweet; vigorous and productive; ripens with Concord.

**Worden**—Said to be a seedling of the Concord, and is a slight improvement on that variety; ripens a few days earlier; bunch large and compact; berry large, black and of good quality; vine vigorous and productive; will become very popular for the vineyard and garden.

## WHITE GRAPES

**Golden Pocklington**—Is a seedling from Concord; vine hardy, both in wood and foliage; strong grower; called a white grape, but the fruit is a light golden yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round and very large and thickly set; quality, when fully ripe, much superior to Concord; ripens with the Concord.

**Moore's Diamond**—Origin, New York. Said to be a cross between Concord and Iona. This handsome new white grape has met with general favor; its extreme early ripening alone would make it valuable, coming in two or three weeks ahead of Concord; the bunch is medium size, slightly shouldered; color greenish white, with a yellow tinge when fully ripe; flesh juicy and almost without pulp; very few seeds.

**Niagara**—A magnificent white grape and very valuable for both garden and vineyard; a rank grower and very productive of beautiful bunches of the largest size; berries large, with a tough skin; quality good; ripens about with Concord.

## RED GRAPES

**Catawba**—A standard sort of good quality, and in favorable locations very valuable; late.

**Lutie**—This fine grape originated in Tennessee, and has taken its place in the front rank of fine table grapes; it is hardy, vigorous and productive, being remarkably free from all fungous diseases; dark red; bunch and berry medium to large; quality the best; should be planted in every garden, as it has no equal as a fine family grape.

# Small Fruits

## STRAWBERRIES

The strawberry, being the first fruit to ripen in the spring, comes to the table when the appetite is exacting, and is a very welcome visitor. It is so beautiful in form, color and fragrance, that it is to the fruits what the rose is to the flowers—a veritable queen.

No fruit can surpass strawberries, fully ripe and freshly picked from the vines. They are so beneficial to health that invalids gain strength from eating them, and they may be eaten at every meal in satisfying quantities and nourish the most delicate stomach.

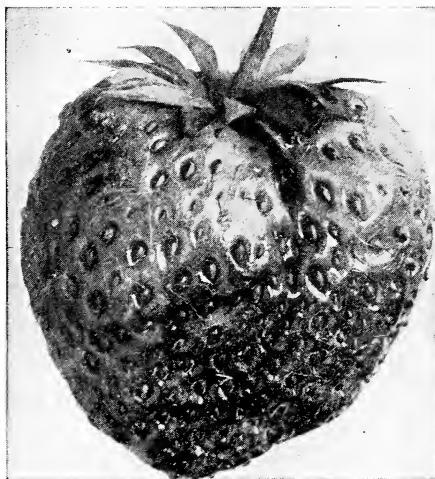
The fruit is so soon produced after planting that it affords pleasant, easy and profitable employment for the poor with but little land, to the old with little strength, and to all who love to till the soil and get near to nature and to mother earth.

The charms of the strawberry do not all end in the eating of it. The strawberry is sure to grow, and the various varieties are suited for the various soils. Its culture is simple, and fine berries are sure to sell at paying prices.

Strawberries come to the table from the garden in the most tempting and presentable shape, and need nothing to fit them to grace the table of a king.

**Cultivation**—Cultivation should commence as soon as plants are set. The best tool for early cultivating is a fine-tooth cultivator, which does not throw much dirt and can be run close to plants. Use hoe to keep weeds and grass out of row, and cultivate thoroughly every week during the growing season. Another reason why a small-tooth cultivator should be used is that it leaves the surface level and thoroughly pulverizes the soil, thereby causing it to retain moisture a long time. The rows should be kept free from grass and weeds until fall. Allow all the first runners to set plants, so that they may make large, stocky and well-rooted plants. After the row is well set, keep all runners out, thus throwing the growth into the plants already rooted. It is a bad mistake to cut the first runners and allow the late ones to grow.

**Pollenizing**—Plants that are marked "S" are staminate, and will produce fruit without other sorts planted with them. Those that are marked "P" are pistillate sorts, and will not produce fruit successfully unless some staminate sort is planted with them. The rule is two rows of pistillate sorts and one of staminate plants, or four of pistillate and two of staminate. Some growers plant the staminate sorts in the rows with the pistillates, using one-third staminate.



Bubach.

**Bubach (P)**—Hundreds of varieties have come up since this one was put on the market of Mr. Bubach of Illinois, and there will be hundreds more of them that will go before this variety. When you sum up the whole substance of the strawberry crop you

will find the Bubach will be among the leaders of the old standard varieties when your hair has turned gray. This berry has been thoroughly described year after year, but for the benefit of those who have not grown them we would say the fruit is of the largest size oftentimes coxcombed, and it is not at all unusual to find berries of this variety weighing an ounce to an ounce and quarter. It will do fairly well under poor cultivation, but responds freely to good food. The plant is perfect, having dark foliage, very stout crown; a prolific grower, and only sets enough plants to give good sized berries.

**Crescent (P)**—This variety is more extensively grown in Mississippi Valley than any other. It is extremely productive when well fertilized. It is so well known that very little need be said in regard to it.

**Excelsior (S)**—This is by far the best early berry we have ever tested. Ripens its first berries a week ahead of Michel's Early, and is four times as productive. Berry of fair size, roundish; holds its size to the very last. The plant is a vigorous grower—all that could be desired.

**Gandy (S)**—Holds first place as a late berry. Succeeds best on a heavy soil, with good cultivation. It is claimed by some not to be productive, but the yield per acre will compare favorably with the best of them. We have never been able to supply the demand for plants of this variety.

**Haverland (P)**—This is one of the best mid-season varieties. The plant is all that can be desired. Makes runners enough without setting plants too thickly. It is a safe variety to plant.

**Lady Thompson (S)**—This variety has been grown world-wide for the past three years, and in great variety of soils, and it seems to succeed quite well; however, it is better adapted to rich, loamy or sandy soil. It is early, very large size and quite productive.

**Michel's Early (S)**—Is a success as an extra early berry in the South. It is all that can be desired.

**Tennessee Prolific (S)**—This berry has caused quite a stir among growers. It is certainly a very fine berry, a vigorous and thrifty grower, the berries are large and even in size; an abundant producer. Should be planted by all berry growers either for market or family use.

## Raspberries

The raspberry succeeds best in deep, rich soil, and well repays generous treatment. The sucker varieties should be planted from 2 to 3 feet apart in rows that are 5 to 6 feet apart. Three to five canes should be left in each hill to bear fruit, and others should be cut out as they appear. Good, clean culture is necessary to obtain the best results.

Varieties that root from the tip should be planted  $2\frac{1}{2}$  to  $3\frac{1}{2}$  feet apart, in rows that are 6 to 7 feet apart, varying in distance according to the richness of the soil and the habit of growth of the different varieties. The points of the young canes should be pinched out as soon as they reach the height of  $1\frac{1}{2}$  to 3 feet, according to the vigor of the cane. This will cause them to make low, spreading stocky bushes, that will support themselves without the aid of stakes or trellises. During the latter part of winter, or early in spring, the canes should be pruned by cutting all the branches back to 6 to 15 inches in length, varying with the strength of the plants. It is better to remove the old wood soon after the fruit is gathered, but this work is often deferred until the spring pruning. Raspberries are benefited by shade, if not dense.

**Cuthbert** (Queen of the Market)—The latter title is indeed true, since as a market variety it is a reigning sort. Of large size and fine flavor, reliable and an enormous bearer; rich crimson, firm, excellent for market and shipping; largely used everywhere, and best of its color.

## Blackberries



*Snyder.*

This fruit requires a well-drained, moderately rich soil, northern exposure preferred. We consider it one of the best paying crops.

**Snyder**—Undoubtedly the most hardy in cane and most prolific variety in existence, and if left on the bushes until fully ripe is really a good berry. Season early; berry of medium size.

**Early Harvest**—The standard early; ripe before raspberries are gone. Cane not entirely hardy.

**Mersereau**—A most phenomenal grower, and very prolific, of larger, better flavored berries than Kittatinny. We have planted it only in a small way, but cane is very hardy; and from its general appearance think it will prove a good one.

**Lucretia Dewberry**—We have a very large demand for plants, which goes to prove that the dewberry is winning its way to the front. The cane will not withstand our cold winters, but can easily be covered with old hay or straw for protection. Berry five times as large as Snyder.

**Austin's Dewberry**—Originated by J. W. Austin of Texas; said to be superior in every way to Lucretia.

**Rathbun**—A cross between dewberry and blackberry; berry very large. We have never heard an unfavorable report. Propagates from root cuttings or tips. Cane is much hardier than dewberry, and grows more upright.

**Juneberry**—Cold or heat, wet or dry, the juneberry seems to get along any way, and always produces fruit. But the market is limited, and hence can never be a profitable fruit plant, but you will always have fruit if you plant juneberry.



## Gooseberries

Until quite recently no interest has been felt in the cultivation of this fruit, further than to grow a meager supply for home consumption, yet there are few crops that will yield as satisfactory returns; certainly none more certain with so little expense in cultivation.

**Downing**—A seedling of the Houghton. An upright, vigorous-growing plant; fruit larger than its parent; color, whitish green; flesh rather soft, juicy, very good; productive; valuable market sort.

**Houghton's Seedling**—Rather small; pale red; flesh tender, juicy, sweet and pleasant; produces enormous crops; free from mildew; most profitable market variety.

## Currants

Currants do best on a cool, sheltered, moist location. Plant about three feet apart. Rows four feet apart. Being perfectly hardy, they can be planted in the fall and do not suffer injury from the winter. To destroy the currant worm, dust the plants with white hellebore when the dew is on; care should be taken not to breathe the hellebore, as it causes violent sneezing.

**Black Naples**—Very large, sometimes measuring half an inch in diameter; fine for wine or jellies.

**Black Champion**—Bunches are very large and the flavor of the fruit is particularly delicious; it hangs long on the bushes.

**Cherry**—The largest of all the red currants; berries sometimes measuring half an inch in diameter; bunches short; plant very vigorous and productive when grown on good soils and well cultivated.

**Fay (Fay's Prolific)**—Bush vigorous, but not quite so strong a grower as Cherry; cluster medium to long, with rather long stems; color darker than Cherry; berries average large, juicy and less acid than Cherry.

**Red Dutch**—An old and well-known standard variety; bush a strong, tall, upright grower, with rather tender shoots; clusters average about three inches long; berries average medium in size, are dark red and have sprightly sub-acid flavor; productive.

## Nut Trees

### ALMONDS

**Princess and Sultana**—Both are prolific, soft-shelled and very good. These are the varieties mostly cultivated in Europe, and produce the bulk of the almonds of commerce.

### CHESTNUTS

**American Sweet**—The common variety that flourishes in our mountains.

**Large Spanish**—Yields very large nuts; not as sweet as the American, but their size and beautiful appearance command a ready sale.

**Japan Giant**—Remarkable for its great size and fine flavor, in those respects being superior to the European varieties. The tree is similar in habit of growth to the Italian chestnut. It is a handsome, sturdy, healthy tree—one of the most useful that can be grown. It grows in northern Japan, and has proved sufficiently hardy almost anywhere in the United States. Many people are deterred from planting nut-bearing trees by the thought that 15 or 16 years must elapse before bringing the tree into bearing condition, while in fact the Japan Mammoth chestnut tree bears fruit at 3 to 4 years of age. The size of the nut is remarkable, some of them weighing 1½ ounces. No nut tree in cultivation promises to be more remunerative.



## WALNUTS

**California Paper Shell**—A variety of the English walnut, or Madeira nut, bearing an oblong shaped nut, with a very tender shell, well filled with a rich kernel.

**Japan**—Produces in abundance nuts larger than the common hickory, which are borne in clusters of from 15 to 20. The meat is sweet, of the very best quality. Leaves enormous size, of a beautiful shade of green, making a very handsome tree.

**Black Walnut**—Our native species. The black walnut is planted for its timber possibilities, the wood being very valuable. There have been many waste pieces of ground thus put into growing timber that will be found very profitable, and the fruit also affords a source of income before the timber is available.

## PECANS

Pecan culture is rapidly increasing throughout the South, there being few trees that yield as regular and large an income after they attain the bearing age. Any good pine land, or land where hickory grows, is suitable for the pecan, but it does best and produces larger crops when planted in the rich alluvial soils. It is a well-known fact that both the quality and the quantity of both nuts and fruits are increased by cultivation, and the pecan is no exception. Here we have a tree which is of beautiful shape, symmetrical, rapid growth, with luxuriant green foliage, which it retains late in the fall, rendering it a very conspicuous and attractive shade tree, producing in great abundance smooth, oblong, thin-shelled nuts with sweet and delicious kernels.

Twenty-three years' experience with the pecan has convinced us more and more of its profitableness. The demand for the best nuts is constantly increasing. Trees from fifteen to two hundred years old are annually producing their crops of nuts to the delight both of the palate and pocketbooks of their owners. A grove once established, a pound of pecans can be grown more cheaply than a pound of cotton, and the grower has twelve months of the year in which to sell them, and the world for his market. Over-production need not be feared in this generation nor during this century.

But if the success is to come to the pecan grower, there are certain precautions that must be observed: (1) Budded or grafted trees should be set of such varieties as are suited to the locality where they are to be grown. Life is too short to experiment with seedlings. (2) The strongest and most vigorous trees are cheapest in the end. A runt in the nursery will remain a dwarf in the grove. (3) Trees should be set on good ground, and carefully cultivated until they become well established. There are minor directions to be observed; but if the above are carefully followed, no great mistake will be made.

**Grafted and Budded Pecans**—We also grow grafted and budded pecans, the scions or buds for which were taken from trees producing very choice soft-shell nuts. The pecan, when budded or grafted from bearing trees, comes into bearing the second or third year from planting, trees having been known to produce fruit in the nursery the first year. You have a certainty of getting nothing but choice nuts, which makes the trees well worth the difference in the price.

**Facts and Conditions of Sale**—Great care is taken to send out only strong and vigorous trees, which are true to name. We sell only budded or grafted trees, most of our stock being the former. Our scions are taken only from bearing trees and can be seen growing and fruiting in the groves. Only strong and vigorous stocks are used for growing trees.

**Varieties**—We are testing about 20 of the most promising varieties of pecans. The following we consider among the best of these:

**Frotscher**—This is our favorite, because several years' experience with it has shown that, in most of the qualities that go to make up a desirable pecan, both in nut and tree, it stands unsurpassed.

**Stuart**—Is an old variety that has been widely tested. This is a safe variety to plant.

**Schley**—Is placed by some at the head of the list. It is a large, thin-shelled nut, and is well filled with meat.

**Vandeman**—Has also been widely planted, and with many growers it stands at or near the head of the list. More trees of the above four varieties have been set than any others that are grown.

**Success**—Is a new candidate for favor. Originating in Mississippi, it has been widely disseminated during the last four years. The nut is quite large. We have fruit it here for two seasons, and consider it very promising.

**Delmas**—Is a large nut and a very early and prolific bearer. A close observer has said of it that he believes that it will make more money for its owner than any other variety for the first fifteen years after it is set.

**Pabst**—Is a safe nut, and while not quite as large as some of the above, yet it is a prolific bearer, and one will hardly make a mistake in setting it.

**Nelson**—Is another new candidate for favor. The nut is very large. It is a strong, vigorous grower and promises to do well.

Can also furnish **Alley**, **Moneymaker**, **Hadley** (new), **Teche** and **Mobile** in limited quantities.

No technical descriptions of the above have been given. We believe that no one will make a mistake in setting any of them. We are also propagating in a small way a number of other varieties of pecans, which, owing to the small number on hand, or for the reason that they have not been sufficiently tested, we do not list here.

## Shade Trees

**Ash, Mountain (White)**—A fine, rapid-growing native tree.

**Ash, Mountain (European)**—A fine, hardy tree; head dense and regular; covered from July till winter with great clusters of bright red berries.

**Beech, Purple-Leaved** (Purpurea)—Discovered in a German forest. An elegant tree, growing 20 to 30 feet high. Foliage a deep purple, changing to crimson; like all varieties of the beech, this is difficult to transplant, hence small trees 3 feet high are preferable.

**Beech, Fern-Leaved** (Heterophylia)—An elegant tree of symmetrical habit, having beautifully cut foliage.

**Beech, European (Sylvatica)**—A beautiful tree, growing to a height of 60 or 80 feet.

**Birch, White (Alba)**—A fine tree of moderate size, with silvery bark and slender branches.

**Elm, American**—A noble native tree of large size, wide-spreading head and graceful, drooping branches. One of the grandest park and street trees.

**Maple, Sugar or Rock**—A very popular American tree, and for its stately form and fine foliage justly ranked among the very best, both for the lawn and the avenue.

**Maple, Scarlet**—A rapidly-growing tree, with red flowers very early in the spring.

**Maple, Silver**—A hardy, rapidly-growing native tree of large size; valuable for producing a quick shade; excellent for street planting.

**Maple, Tartarian**—A choice variety; medium size, rounded form, thriving in damp soils if desired; moderate grower, but makes a handsome specimen. Foliage turns yellow in the fall.

**Maple, Sycamore**—A free, upright, rapid grower; large, deep green foliage.

**Mulberry, Teas' Weeping Russian**—A weeping variety of the now well-known Russian Mulberry; perfectly hardy in summer and winter; withstands extreme heat and cold, and grows naturally in a very graceful form.

**Poplar, Carolina**—One of the most rapidly-growing and desirable shade trees for street planting. It is especially desirable for planting in large cities, as it will stand more hardship than any other tree we know of. The leaves are large, deep green, glossy and handsome.

**Kumquat**—The Kumquat, or Kin-kan (*Citrus Japonica*), the smallest of the Citrus family, is a hardy shrub, reaching a height of 10 to 15 feet. It is a very handsome plant, with narrow, dark green foliage and golden fruit.

Kumquats equal the Satsuma orange in hardness, and should be planted with it. On Citrus trifoliata stock, it will withstand a temperature of 15 degrees F. without injury. The fruit sells at a fancy price, \$6 to \$10 per crate, and, if carefully marketed, it is a very profitable fruit to grow. The fruits should be picked with leaves attached, packed tastefully in quart baskets, and shipped in strawberry crates. They are eaten without removing the rind, and make excellent preserves, marmalades, jellies and crystallized fruit. The To variety is splendid for making ade.

We propagate Marumi and Nagami only on Citrus trifoliata and Rough Lemon stocks, as they do not grow well on Sweet or Sour Orange roots. To is propagated on Sour Orange as well.

**Satsuma** (Synonyms: Oonshiu, Kii Seedless)—An extremely early variety of the Mandarin (*Citrus nobilis*) type; ripening in September, October and November. Fruit small to medium in size, flattened; rind light yellow, smooth and loosely adherent. Qual-

ity excellent. Nearly always brings a high price in market on account of its extreme earliness. Trees are rather smaller than other varieties, and more drooping in character of growth. The hardiest variety of edible orange known; has stood a temperature of 15 degrees above zero (F.h.) without injury. Can be grown successfully all along the Gulf coast from Florida to Northern Mexico; in fact, bearing trees can be found in all of the Gulf States and are highly esteemed. Should be planted more in Texas and Mexico, as well as other Gulf States.

**Willow, Kilmarnock** (Weeping)—An exceedingly graceful tree, with large, glossy leaves; very hardy.

## Hardy Ornamental Shrubs

**Althea, Rose of Sharon**—Unsurpassed by anything in the hardy shrub line for freedom of bloom or range of color. From mid-summer until frost, when few other shrubs are in bloom, the Althea is the most handsome, with its large Camelia-like flowers of the most varied and beautiful shades.

**Althea, Double White**—White with crimson center.

**Althea, Double Variegated**—Pink and white.

**Althea, Double Purple**.

**Althea, Double Blue**—Deep blue.

**Althea, Double Red**—Pure red.

**Althea, The Banner**—An excellent striped variety, nicely marked white and deep rose.

**Deutzia Crenata** (Double-flowering)—Flowers double white, tinged with rose. One of the most desirable flowering shrubs in cultivation.

**Deutzia, Pride of Washington**—A new variety raised from Deutzia, Crenata, and exceeding all others in size of flowers, length of panicles, profuseness of bloom and vigorous habits; a charming acquisition to the list of Deutzias.

**Honeysuckle, Red Tartarian**—A beautiful shrub; vigorous and producing large, bright red flowers, striped with white, in June.

**Hydrangea, Oacksa**—Foliage a beautiful deep green; produces immense clusters of rose-colored flowers in profusion in July. Should be planted in tubs and protected in winter.

**Hydrangea, Paniculata Grandiflora**—Fine shrub, blooming from July to November; large, showy panicles of white flowers in the greatest profusion; it is quite hardy, and altogether a most admirable shrub for planting singly on the lawn or in the margin of masses; to produce the largest flowers it should be pruned severely in the spring and the ground enriched.

**Hydrangea, Thomas Hogg**—A half-hardy variety of great beauty; flowers pure white, produced from July to September. Requires some winter protection.

**Lilac, Charles the Tenth** (*Syringa*)—A strong, rapid grower, with large, shining leaves and reddish-purple flowers.

**Almond, Double Flowering**—A desirable class of early flowering shrubs.

**Azalea, Mollis**—A beautiful species recently brought from Japan; it has fine, large trusses of flowers in shades of pink and yellow; requires some protection.

**Calycanthus or Sweet-Scented Shrub** (*Calycanthe*)—The wood is fragrant, foliage rich; flowers of rare cholate color, having a peculiarly agreeable odor. Flowers in June and at intervals afterward.

### SPIREA

An indispensable class of medium sized shrubs, of easy culture in all soils. They embrace a wide range of foliage, habit of growth, color of flowers and season of blooming.

**Ballardi**—Rose color; blooms nearly all summer.

**Van Houtti**—One of the most charming and beautiful of the spireas, having pure white flowers in clusters or panicles about an inch in diameter. Astonishingly profuse in bloom and plants remarkably vigorous and hardy.

**Snowball, Common**—A well-known favorite shrub of large size, with globular clusters of pure white flowers in the latter part of May.

**Japanese** (*Viburnum Plicatum*)—From North China; has very rich, deep green foliage, of handsome form and beautiful globular heads of pure white flowers, quite distinct from those of the common sort. A very desirable shrub.

**Wiegelia, Amabilis or Splendens**—Of robust habit; large foliage and pink flowers; blooms fully in autumn; a great acquisition.

## Vines and Creepers

**Ampelopsis Veitchi** (Boston Ivy)—A beautiful hardy climbing plant. This is one of the finest climbers we have for covering walls, as it clings firmly to the smoothest surface, covering it smoothly with overlapping foliage, giving it the appearance of being shingled with green leaves. The color is a fresh deep green in summer, changing to the brightest of crimson and yellow in autumn. It is quite hardy and becomes more popular every year.

### CLEMATIS

A beautiful class of climbers, many of the varieties with flowers 5 to 7 inches in diameter. Excellent for pillars or trellises; or when used for bedding, running over rock work or an old tree or stump, they make an excellent show. They delight in a rich soil, a sunny situation, and are perfectly hardy.

**Duchess of Edinburg**—A free flowering double white variety, with medium sized flowers.

**Gipsy Queen**—One of the finest of the dark purple varieties; a strong grower and free bloomer.

**Henryi**—Fine, large, creamy white flowers; a strong grower and very hardy; one of the best of the white varieties; a perpetual bloomer.

**Jackmanii Alba**—Fine, large, pure white flowers.

**Jackmanii**—The flowers, when fully expanded, are from 4 to 6 inches in diameter; intense violet purple, with a rich, velvety appearance, distinctly veined; it flowers continually from July until cut off by frost.

### HONEYSUCKLE (*Lonicera*)

**Chinese Twining** (*Japonica*)—A well-known vine, holding its foliage nearly all winter. Blossoms in July and September, and is very sweet.

**Common Woodbine** (*Periclymenum*)—A strong, rapid grower, with very showy flowers, red outside, buff inside; June and July.

**Hall's Japan** (*Hallicana*)—A strong, vigorous evergreen variety, with pure white flowers, changing to yellow; very fragrant, covered with flowers from June to November.

### WISTARIA

**Chinese Purple** (*Sinensis*)—A most beautiful climber of rapid growth, and producing long, pendulous clusters of pale blue flowers. When well established it makes an enormous growth; it is very hardy, and one of the most superb vines ever introduced.

**Chinese White** (*Sinensis Alba*)—Introduced by Mr. Fortune from China, and regarded as one of the greatest acquisitions; a rather slow grower.

## Evergreens

**Arbor Vitae, American**—One of the finest evergreens for hedges. It grows rapidly and soon forms a most beautiful hedge; very dense. Of course it is never adapted to stock, but it forms a most desirable and ornamental screen to divide the lawn from other parts of the ground, or any other purpose.

**Arbor Vitae, Golden**—A beautiful variety of Chinese, compact and globular; color a lively yellowish green; not quite hardy at the North; should be planted in a shady situation.

**Arbor Vitae, Pyramidalis**—An exceedingly beautiful, bright variety, resembling the Irish Juniper in form; foliage a deep green, color well retained in winter; perfectly hardy. Should have a place in every collection.

**Arbor Vitae, Compacta**—Foliage light green; habit dwarf and compact.

**Arbor Vitae, Rosedale Hybrid**—By far the finest of all evergreens of this class. A true hybrid between the Golden Arbor Vitae (*Biota aurea*) and *Retinospora squarrosa*, bearing a striking resemblance to both, as it possesses the fine, feathery foliage of *retinospora*, and the dense, compact, sugar-loaf shape of *Biota aurea*. It is a vigorous grower and perfectly hardy; somewhat dwarfish.



**Juniper, Irish** (*Hybernica*)—Very erect and tapering in its growth, forming a column of deep green foliage, a pretty little tree or shrub, and for its beauty and hardiness is a general favorite.

**Pine, Austrian or Black** (*Austria*)—A remarkably robust, hardy, spreading tree; leaves long, stiff and dark green; growth rapid; valuable for this country. One of the best of the white varieties; a perpetual bloomer.

**Pine, Scotch** (*Sylvestria*)—A fine, robust, rapidly-growing tree, with stout, erect shoots and silver-green foliage.

**Pine, White** (*Strobus*)—The most ornamental of all our native pines; foliage light, delicate or silvery green.

**Spruce, Hemlock** (*Abies*)—An elegant pyramidal tree, with drooping branches and delicate dark foliage, like that of the yew. Distinct from all other trees. It is a beautiful lawn tree, and makes a highly ornamental hedge.

**Spruce, Norway**—A lofty, elegant tree, of perfect pyramidal habit, and as it gets age, has fine, graceful, pendulous branches; it is exceedingly picturesque and beautiful. Very popular, and deservedly so. One of the best evergreens for hedges and windbreaks.

**Arbor Vitae, Siberian**—A superb variety, similar to American, with heavier and fuller foliage and more compact in habit. It holds its color during the winter and bears trimming well. Is valuable for low hedging and single specimen.

**Arbor Vitae, Globosa**—Forms a dense, low globe shape; a beautiful evergreen.

**Arbor Vitae, Hovey's Golden**—A small tree, globular in form; foliage light green, with a golden tinge, and very compact; hardy.

**Box Tree**—A fine, small evergreen, with pale green leaves. Can be trained in any desirable form by shearing.

**Box, Dwarf**—Used principally for borders and edging, for which purpose it is the best plant in cultivation.

**Cypress, Lawson's**—A rare evergreen from California; one of the most graceful, elegant drooping branches; half hardy here.

**Spruce, Colorado Blue** (*Picea pungens*)—This species has been tested at various points on the prairies of the West and Northwest with perfect success, enduring a temperature of 30 degrees below zero, in exposed situations, entirely uninjured. This is not only one of the hardiest, but the most beautiful in color and outline; foliage of a rich blue or sage color; it is a valuable acquisition.

## Roses

### YOUNG ROSES

The following is a list of good, thrifty plants. All prices are for stock from 2-inch pots. We can supply most of these roses in two-year-old plants from 4 and 5-inch pots at \$1.50 per dozen, \$12.00 per 100.

**Antoine Rivoire**—Color rosy flesh, on a yellow ground, shaded with a border of carmine. Price, 40 cents per dozen; \$3.00 per 100.

**Blumenschmidt**—Pure, rich yellow; outer petals edged tender rose. A sport from Mademoiselle Franzisca Kruger, which it resembles in form. Price, 50 cents per dozen; \$3.50 per 100.

**Bessie Brown**—Blooms are of enormous size, snow white, faintly flushed and tinged with pink. A fine, strong, free grower, producing long stems, well clothed in foliage quite up to the flower. Price, 50 cents per dozen; \$3.50 per 100.

**Bride**—The flowers are very large and double, on long stiff stems of fine texture and substance, and last a long time in a fresh state after being cut, making it one of the best varieties for corsage wear or bouquets. During extreme hot weather it becomes a pinkish white; at other times a beautiful pure white. Price, 50 cents per dozen; \$3.00 per 100.

**Bridesmaid**—Grand new sport from Mermet. Color rich, deep pink. Best and largest pink Tea Rose. Price, 40 cents per dozen; \$3.00 per 100.

**Baby Rambler** (Mme. Norbert Levavasseur)—The Crimson Rambler in dwarf form, with the same clear, brilliant, ruby-red color. Hardy and healthy everywhere, attaining a height of twenty inches and blooming in profuse clusters until frost, and throughout the winter, if taken indoors. Price, 60 cents per dozen; \$4.00 per 100.

**Clothilde Soupert**—With the exception of Pink Soupert, the best, biggest and freest blooming of all Polyanthas. Known everywhere. Flowers large, borne in clusters; free, double and deliciously scented. Color white, center flushed silvery rose. Blooms all the time. A grand pot rose. Price, 50 cents per dozen; \$3.00 per 100.

**Colonel R. S. Williamson**—Color satiny white with deep blush center; blooms large, well formed, with high pointed center and carried on stiff stems. Price, 75 cents per dozen; \$5.00 per 100.

**Etoile de Lyon**—This magnificent Tea Rose blooms in the greatest profusion, and each bud is a gem. Flowers are very large, double, full; deliciously fragrant. The color is a beautiful chrome yellow, deepening at center to pure golden yellow. Price, 50 cents per dozen; \$3.00 per 100.

**Etoile de France**—It is a strong, healthy grower, quite hardy and a quick and abundant bloomer; makes beautiful large pointed buds and extra large, fully double flowers three and one-half to four and one-half inches across; color very bright dark, rich crimson. Price, 60 cents per dozen; \$4.00 per 100.

**Franzisca Kruger**—Probably the best of all round bedding roses we have. Its shadings of deep, coppery yellow stand distinct and unique. Price, 40 cents per dozen; \$3.00 per 100.

**General Jacqueminot**—One of the most popular of red roses; brilliant crimson; large and effective; very fragrant. One of the hardiest.

**General McArthur**—A new rose that is already a fixture in many gardens. Color brilliant scarlet, a very bright colored rose of good size and double; very free blooming and fragrant. Many claim for this that it will rank with Helen Gould as a red rose. It has certainly shown up well with us the past two seasons. Price, 60 cents per dozen; \$4.00 per 100.

**Gruss an Teplitz**—As a bedding rose this is one of the finest and most useful varieties ever sent out. The color is brightest scarlet, shading to deep, rich velvety crimson. It is very fragrant. The freest grower and the most profuse of any ever-bloomer. Price, 50 cents per dozen; \$4.00 per 100.

**Helen Gould**—It is a better rose for general planting than American Beauty. The dream and hope of every rose grower for years past. The flowers are full and perfectly double, the buds beautifully made, long and pointed. The color is warm, rosy crimson. It is as hardy as La France. Price, 40 cents per dozen; \$3.00 per 100.

**Kaiserin Augusta Victoria**—We have white roses that have elegant buds, but when full blown are not all that is desired. This rose combines both these good qualities. Color a pure, snowy white. Price, 50 cents per dozen; \$3.50 per 100.

**La France**—It is of superb form, and double as a rose can be. No variety can surpass it in delicate coloring—silvery rose shades, with pink. Hardy beyond question. It blooms continuously. The flower is large, finely built, endures for a great length of time, is exquisitely colored and fragrant in the highest degree. Price, 50 cents per dozen; \$4.00 per 100.

**Meteor**—The color is rich, velvety crimson, exceedingly bright and attractive. The plant is of vigorous growth, and very free flowering; a constant bloomer. Fine for summer bedding or pot culture. Price, 40 cents per dozen; \$3.00 per 100.

**Maman Cochet**—A most wonderfully beautiful rose of great value. The color is fleshy pink, with the inner side of petals silvery rose. Grows vigorously and blooms with great freedom. One of the finest of ever-blooming roses. Price, 40 cents per dozen; \$3.00 per 100.

**Marie Van Houtte**—Magnificent in the open ground. Extra large, full, double flowers. Canary yellow, passing to creamy white, shaded rose. Price, 40 cents per dozen; \$3.00 per 100.

**Mrs. B. R. Cant**—A fine garden variety of even shade of bright rose, round and full, the form of a good H. P. A very free grower and free bloomer. Price, 50 cents per dozen; \$3.00 per 100.

**Paul Neyron**—One of the most desirable garden roses known; also considered the largest; color a deep rose pink; very fragrant; hardy and a strong grower.

**Perle Des Jardins**—The best of all yellow Tea Roses. The flowers are extra large and full, of globular form, with great depth and substance; richly perfumed. Color clear, golden yellow. Price, 40 cents per dozen; \$3.00 per 100.

**Papa Gontier**—An excellent crimson Tea Rose, and one of the best for all purposes. It has a perfect shaped bud on good length of stem, making it desirable for cut flowers, and when planted outside the flowers open up nicely, and are of an attractive carmine crimson. Price, 40 cents per dozen; \$3.00 per 100.

**Rhea Reid**—It makes a fine, upright bush; has beautiful deep green foliage, and the flowers, which are glorious in their form and fragrance, are borne with amazing profusion; in fact, it is always in bloom. Color is absolutely new, clear red or crimson violet. Price, 60 cents per dozen; \$4.00 per 100.

**Safrano**—Splendid old-time roses. Perfect flowers and buds. Bright apricot yellow, shading to orange, and tinted with rose. Price, 40 cents per dozen; \$3.00 per 100.

**Striped La France**—Nicely striped, the markings being plain and distinct, the variegations a beautiful bright rose, on a satiny-pink ground. Price, 50 cents per dozen; \$3.00 per 100.

**Souvenir de La Malmaison**—Lovely flesh pink, elegantly shaded with rosy peach; perfectly full, double and very large flowers of fine symmetrical form; fragrant, free and vigorous for out-of-door cultivation. Price, 60 cents per dozen; \$4.00 per 100.

**Soux, de President Carnot**—The flowers are large, full, double, well shaped, with heavy, thick, shell-like petals; buds very long and pointed—perfection in every line. Delicate, rosy blush color, shaded a trifle deeper at the center of the flowers. Price, 40 cents per dozen; \$3.00 per 100.

**Wm. R. Smith**—The flowers are large, full and double and most exquisitely formed. The petals softly curled, colored cream, with flesh tint tips, buff yellow base and the center a heart of pink. The flowers are borne on long, strong stems. Price, 50 cents per dozen; \$3.50 per 100.

**White Maman Cochet**—This superb variety is identical with its parent, Maman Cochet, except in color of flower, which is snowy white, sometimes tinged with the faintest suggestion of pale blush. Price, 40 cents per dozen; \$3.00 per 100.

**White La France**—Here we have a beauty indeed, one we can recommend to all, whether for outdoor culture or for pots in the house for winter. It is pearly white, sometimes tinted with white. Price, 40 cents per dozen; \$3.00 per 100.

#### EVER-BLOOMING CLIMBING ROSES

**Climbing Meteor**—Climbing Meteor is the acme of all red climbing roses. It is a free, persistent bloomer, and will make a growth from ten to fifteen feet in a season. In bloom all the time, as it is a true ever-bloomer. We do not hesitate to place it at the head of the list of all roses for summer blooming, as it will make a strong growth, and is literally loaded with its deep, rich red flowers all the time. Price, 40 cents per dozen; \$3.00 per 100.

**Crimson Rambler**—The most popular out-of-door climber of today. A rapid producer of long heavy canes, reaching a height of ten to twenty feet in one season; rich clusters of bloom form a mass of vivid crimson beauty until late in the season. Price, 50 cents per dozen; \$3.00 per 100.

**Dorothy Perkins**—Beautiful shell pink color, which holds for a long time, fading finally to a lovely deep rose; very sweet scented; fully equal to Crimson Rambler in foliage, hardiness, habit of growth and blooming qualities. Price, 50 cents per dozen; \$3.00 per 100.

**Marechal Neil**—A beautiful deep sulphur yellow; very full, very large and exceedingly fragrant. It is the finest yellow rose in existence. It has the climbing habit, and where it is permitted to grow until it has attained a large size, as it will in a few years, it yields thousands of beautiful golden yellow flowers. Especially desirable. Price, 40 cents per dozen; \$3.00 per 100.

**Reine Marie Henrietta**—A strong, vigorous grower; flowers large, full and of fine form. Color a pure cherry red; large, full and sweet scented. Succeeds well in the South. Price, 40 cents per dozen; \$3.00 per 100.



Press of  
**THE FRUIT-GROWER**  
St. Joseph, Mo.